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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,491	06/06/2001	Toyokazu Sugai	1163-0340P	5202
2292 7590 05/03/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER CHOWDHURY, SUMAIYA A	
			ART UNIT 2623	PAPER NUMBER
			NOTIFICATION DATE 05/03/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/857,491	Applicant(s) SUGAI, TOYOKAZU	
	Examiner Sumaiya A. Chowdhury	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8-10 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8-10 and 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 8-10, and 14-22 have been considered but are moot in view of the new ground(s) of rejection.
(a) Applicant argues Kaneko fails to teach achieving a sending-out frequency for at least one type of table that is greater than or equal to a specific frequency on pages 7-8 of the Reamarks filed 3/12/07.

Examiner agrees and has therefore brought in Arsenault (6658661) to teach this limitation.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1, 8-10, and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko in view of Arsenault (6658661).

As for claim 1, Kaneko teaches a data sending-out device, in which associated data associated with and multiplexed with main data is produced and sent out, comprising:

producing means for producing the associated data of a prescribed type (25 - Fig. 4, col. 12, lines 33-52); and

sending-out means for transforming the associated data of the prescribed type produced by the producing means into a bit stream and sending out the associated data transformed into the bit stream (TS packetizing circuit - Fig. 4, col. 12, lines 33-53. "a desired data rate" within "a desired transmission bandwidth" would be equal to or lower than a prescribed upper limit bit rate);

wherein the main data is a broadcast program (col. 1, lines 16-19), one or more tables based on electronic program guide information of the broadcast program are produced as the associated data by the producing means (25 - Fig. 4, col. 12, lines 33-52, col. 13, lines 12-43)

when the amount of information in the associated data exceeds amount necessary to achieve a sending-out rate equal to or lower than the prescribed upper limit bit rate, the amount of information in at least one of the tables is decreased so that the amount of information in associated data is less than or equal to the necessary amount (When the amount of data which is transmitted within the predetermined bandwidth is increased exceeding the predetermined bandwidth, the sending out rate is surpassed. Kaneko teaches when the amount of data of each table exceeds the preselected threshold value, the tables are split into sub-tables - col. 17, lines 10-28), and

one or more tables are transformed into the bit stream by the sending-out means, and the one ore more tables transformed into the bit stream are sent out according to

the sending-out rate equal to or lower than the prescribed upper limit bit rate (col. 17, lines 10-27; If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Since bandwidth corresponds to data rate, after dividing the data into sub-groups, the data is then transmitted at the corresponding data rate, not exceeding the maximum data rate. Dividing into sub-groups is adjusting the amount of information in the type of table).

However, Kaneko fails to teach:

Decreasing the amount of data in a table based on achieving a sending-out frequency for at least one type of table equal to or higher than a specific sending-out frequency;

In an analogous art, Arsenault teaches the program guide data is divided to be transmitted over carousels. The carousels broadcasts program guide data corresponding to a particular section of time relative to a reference time. Carousels broadcasting program guide data related to programming in the near future are cycled more frequently than carousels broadcasting program guide data related to programming further in the future. For example, a first carousel may broadcast program guide data corresponding to the next six hours of programming only, repeating every five minutes, while a second carousel broadcasts program guide data related to programming from six to twenty four hours from the current time, repeating every thirty minutes. – col. 7, lines 15-53.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Kaneko's invention to include the above mentioned

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limitation, as taught by Arsenault, in order for the receiver to acquire information in an efficient manner.

As for claim 8, Kaneko and Arsenault teach wherein the multiple types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of priorities of the types of tables to allow the tables to be sent out at the sending-out rate equal to or lower than the prescribed upper limit bit rate and allow the tables to be sent out at sending-out frequencies equal to or higher than specific sending-out frequencies of the types of tables (See Kaneko; Col. 14 lines 18-67, Col. 15 lines 1-47 The version generator determines, based on priority, whether or not to produce a new version of a table. Producing a different version of a table is adjusting the amount of information in the table. This process is directly related to the determination of transmission cycles).

As for claim 9, Kaneko and Arsenault teach wherein multiple types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of sending-out frequency reduction rates of the types of tables to allow the tables to be sent out at the sending-out rate equal to or lower than the prescribed upper limit bit rate and allow the tables to be sent out at sending-out frequencies equal to or higher than specific sending-out frequencies of the

types of tables (See Kaneko; Col. 15 lines 20-67, Col. 16 lines 1-67, Col. 17 lines 1-27 If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into sub-groups is adjusting the amount of information in the type of table).

As for claim 10, Kaneko and Arsenault teach wherein the types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of sending-out frequency reduction rates of the types of tables to allow the tables to be sent out at the sending-out rate equal to or lower than the prescribed upper limit bit rate and allow the tables to be sent out at the sending-out frequencies equal to or higher than the specific sending-out frequencies of the types of tables (See Kaneko; Col. 15 lines 20-67, Col. 16 lines 1-67, Col. 17 lines 1-27 If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into sub-groups is adjusting the amount of information in the type of table).

As for claim 14, Kaneko and Arsenault teach wherein the one or more tables are again produced in cases where it is impossible to send out the one or more tables at the sending-out rate equal to or lower than the prescribed upper limit bit rate or it is impossible to send out the at least one type of table at the sending-out frequency equal to or higher than the specific sending-out frequency (See Kaneko; Col. 14 lines 32-46

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Tables are continuously produced as information is updated, so tables are "again produced" in all cases).

As for claims 15 and 16, Kaneko and Arsenault teach wherein the amount of information in at least one type of table is calculated prior to the production of the at least one type of the at least one type of table, and the at least one type of table is produced by the producing means by adjusting the amount of information in the at least one type of table to allow the one or more tables to be sent out at the sending-out rate equal to or lower than the prescribed upper limit bit rate and to allow the at least one type of table to be sent out at the sending-out frequency equal to or higher than the specific sending-out frequency (See Kaneko; Col. 17 lines 10-27 If it is calculated that a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into sub-groups is adjusting the amount of information in the type of table).

As for claim 17, Kaneko and Arsenault teach wherein the amount of information in at least one type of table is calculated prior to the production of the type of table, and the at least one type of table is produced by the producing means by adjusting the amount of information in the at least one type of table to allow the tables to be sent out at the sending-out rate equal to or lower than the prescribed upper limit bit rate and to allow the at least one type of table to be sent out at the sending-out frequency equal to or higher than the specific sending-out frequency (See Kaneko; Col.

17 lines 10-27 If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into subgroups is adjusting the amount of information in the type of table).

As for claims 18-20, Kaneko and Arsenault teach wherein, prior to the production of at least one type of table, the amount of information for each type of table information for each type of table information, for which the amount of the electronic program guide information is not predetermined, is detected and added to a summed value in the calculation of the amount of information, the amount of information for each type of table information, for which the amount of the electronic program guide information is predetermined, is read out from a record and is added to the summed value in the calculation of the amount of information, and the amounts of information in the at least one types of table is calculated (See Kaneko; Col. 17 lines 10-15. In both cases, (whether the amount of electronic program guide information is predetermined or not) the amount of information in each type of table is added to a summed value prior to the production of each type of table. This is equivalent to knowing a cumulative amount of information in a table when the tables are produced. The amount of information in one of Kaneko's table is a cumulative amount of information).

As for claim 21, Kaneko and Arsenault teach the data sending-out device wherein:

The producing means produces multiple types of tables – Kaneko; col. 12, lines 32-52, and

When the amount of information in the associated data exceeds the necessary amount to achieve the sending-out rate and the sending out frequency, the amount of information in the at least one of the tables is decreased according to at least one of:

Relative priorities (first version number) of the types of tables (When a given switching time is reached, the data elements of each tables to which a first version number is assigned are first transmitted. Clearly, based on priority, data is transmitted in a sequenced order – Kaneko; col. 17, lines 27-35).

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko and Arsenault as applied to claim 21 above, and further in view of Ong.

As for claim 22, Kaneko and Arsenault fail to teach:

Wherein the amount of information in the at least one of the tables is decreased by deleting information of relative low importance.

In an analogous art, Ong teaches data which is of low priority is removed – col. 4, line 62 – col. 5, line 6.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Kaneko and Arsenault's invention to include the above mentioned limitation, as taught by Ong, for the well known desirable advantage of conserving memory.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumaiya A. Chowdhury whose telephone number is (571) 272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAC



ANDREW Y. KOENIG
PRIMARY PATENT EXAMINER